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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,454	01/30/2006	Juliana H. J. Brooks	BKL: 116 (b) US	4310

7590 02/15/2008

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EXAMINER
DAVIDSON, DAN

ART UNIT	PAPER NUMBER
2627	

MAIL DATE	DELIVERY MODE
02/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/535,454	BROOKS ET AL.	
	Examiner	Art Unit	
	Dan I. Davidson	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03162006; 04092007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The information disclosure statements filed March 16, 2006 and April 9, 2007 have been received and have been considered and made of record.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-15 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/467,912. Although the conflicting claims are not identical, they are not patentably distinct from each other because the only difference between the claims in the instant application and the copending application is the use of the word "directional" in multiple instances in claims 1-15 of the instant application. Since splitting or shifting of at least one frequency results in an increase and/or decrease of

the at least one frequency, the word "directional" does not patentably distinguish the claims in the instant application from the claims in the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rejected since it is unclear how a magnetic field strength can be stored. Magnetic data can be stored using a magnetic field with a certain amount of strength, but the physical quantity of magnetic field strength cannot itself be stored.

Allowable Subject Matter

6. Claims 1-15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Re claims 1 and 8; the prior art of record, and in particular Kebabian (US 5,760,895 A) and Dorschner et al (US 4,229,106 A) which are the closest prior art of record, fails to teach or suggest all of the claimed limitations in combination, specifically including the limitations of assigning a data value to the splitting or shifting of frequency; and reading the directional splitting or shifting of frequency as the assigned data value. Kebabian and Dorschner et al only disclose using at least one stored magnetic field

strength to cause directional splitting or shifting of at least one frequency in at least one material; and detecting at least one of a split frequency, a shifted frequency, and a splitting frequency in the at least one material (Kebabian: col. 2, lines 37-51; Dorschner et al: col. 7, lines 32-41).

Re claim 9; the prior art of record, and in particular Kebabian (US 5,760,895 A) and Dorschner et al (US 4,229,106 A) which are the closest prior art of record, fails to teach or suggest all of the claimed limitations in combination, specifically including the limitation of a means for assigning a data value to the directional shifting or splitting of frequency.

Re claim 10; the prior art of record, and in particular Kebabian (US 5,760,895 A) and Dorschner et al (US 4,229,106 A) which are the closest prior art of record, fails to teach or suggest all of the claimed limitations in combination, specifically including the limitations of means for assigning a data value to the amount of directional splitting or shifting of frequency; and means for reading the directional splitting or shifting of frequency as the assigned data value.

Re claim 15; the prior art of record, and in particular Kebabian (US 5,760,895 A) and Dorschner et al (US 4,229,106 A) which are the closest prior art of record, fails to teach or suggest all of the claimed limitations in combination, specifically including the limitations of assigning a data value to the directional splitting or shifting of at least one frequency; and storing the directional splitting or shifting of frequency as the assigned data value.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kebabian (US 5,760,895 A) teaches determining water vapor concentration in a sample by using light from down-shifted and up-shifted frequency components which are formed based on the strength of a magnetic field applied to the plasma in a lamp.

Dorschner et al (US 4,229,106 A) teach producing a Zeeman effect in a laser medium to enable an electromagnet wave ring resonator to resonate with four different frequencies. This involves using a magnetic field that has the effect of frequency-splitting in the ring resonator.

Yoshino (US 4,660,187 A) teaches reading information from a magnetic medium using optical means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan I. Davidson whose telephone number is (571) 272-7552. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington, can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DID
Dan I Davidson
February 11, 2008

ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER